

READ ME File For 'Dataset for An Unsuitable Li-O₂ Battery Electrolyte Made Suitable with the Use of Redox Mediators'

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This dataset contains:

The figures are as follows:

Figure 1: Galvanostatic discharge of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte with and without 50 mM DBBQ additive.

Figure 2a: SERS spectra recorded for a SSV gold electrode in oxygenated 0.1 M LiTFSI/EMIMTFSI electrolyte without DBBQ additive.

Figure 2b: SERS spectra recorded for a SSV gold electrode in oxygenated 0.1 M LiTFSI/EMIMTFSI electrolyte with DBBQ additive.

Figure 3a: Galvanostatic cycling of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte and no additives.

Figure 3b: Gas consumption and evolution analysis obtained from operando pressure measurements for Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte and no additives.

Figure 3c: OEMS analysis of gas evolution of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte and no additives.

Figure 4a: Galvanostatic cycling of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte containing 50 mM DBBQ.

Figure 4b: Gas consumption and evolution analysis obtained from operando pressure measurements for Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte containing 50 mM DBBQ.

Figure 4c: OEMS analysis of gas evolution of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte containing 50 mM DBBQ.

Figure 5a: Galvanostatic cycling of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte containing 50 mM DBBQ and 50 mM iodide.

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Figure 5b: Gas consumption and evolution analysis obtained from operando pressure measurements for Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte containing 50 mM DBBQ and 50 mM iodide.

Figure 5c: OEMS analysis of gas evolution of Li-O₂ cells with 1 M LiTFSI/EMIMTFSI electrolyte containing 50 mM DBBQ and 50 mM iodide.

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